

ABSTRACT

[0067] CMOS and CCD imaging devices comprising different in-pixel capacitors and peripheral capacitors and methods of formation are disclosed. The capacitors used in periphery circuits have different requirements from the capacitors used in the pixel itself. Dual stack capacitors comprising two dielectric layers may be provided to achieve low leakage and high capacitance. A single masking step may be provided such that one region has a dual dielectric capacitor and a second region has a single dielectric capacitor. A different dielectric may also be provided in one region compared to another region wherein the inter-electrode insulator comprises a single dielectric in both regions.